

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

RULE 4622 - GASOLINE TRANSFER INTO MOTOR VEHICLE FUEL TANKS

(Adopted May 21, 1992; Amended November 18, 1992; Amended December 17, 1992; Amended February 17, 1994; Amended June 18, 1998; Amended September 19, 2002)

1.0 Purpose

The purpose of this rule is to limit emissions of gasoline vapors from the transfer of gasoline into motor vehicle fuel tanks.

2.0 Applicability

This rule applies to any gasoline storage and dispensing facility at which gasoline is transferred into motor vehicle fuel tanks except as provided in Section 4.0.

3.0 Definitions

For the purpose of this rule, the following definitions shall apply:

- 3.1 Balance System: A certified Phase II vapor recovery system that operates on the principle of vapor displacement.
- 3.2 Certified Phase II Vapor Recovery System: a vapor recovery system which has been certified by the California Air Resources Board (ARB) pursuant to Section 41954 of the California Health and Safety Code. For the purpose of this rule the term certified shall refer to ARB certification.
- 3.3 Existing Dispensing Facility: a gasoline dispensing facility which was in existence on or before May 21, 1992.
- 3.4 Gasoline: any petroleum distillate, or petroleum distillate/alcohol blend or alcohol having a Reid vapor pressure of four (4) pounds per square inch or greater, which is used as a motor vehicle fuel, or any fuel which is commonly or commercially known or sold as gasoline.
- 3.5 Gasoline Storage and Dispensing Facility: an aggregate of one or more stationary storage containers, any of which is subject to the provisions of Rule 4621 (Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants) and this rule together with dispensers and control equipment required by the rules.
- 3.6 Gasoline Vapors: the organic compounds in the displaced vapors including any entrained liquid gasoline.

- 3.7 Hold-Open Latch: the integral component of a gasoline dispensing nozzle which permits the nozzle to remain open without a sustained effort on the part of the refueler.
- 3.8 Leak: the dripping of liquid volatile organic compounds at a rate of three or more drops per minute, or vapor volatile organic compounds in excess of 10,000 ppm as equivalent methane as determined by the test method in Section 6.3.4.
- 3.9 Major Defect: a defect in the vapor recovery system or its component, as listed in California Code of Regulations, Title 17, Part III, Chapter 1, Subchapter 8, Section 94006.
- 3.10 Major Modification: the addition, replacement, or removal of fifty percent or more of the buried vapor piping, or the replacement of dispensers. The replacement of a dispenser is not a major modification when the replacement is occasioned by end user damage to a dispenser.
- 3.11 Motor Vehicle: any self-propelled vehicle registered for use on the highways.
- 3.12 Retail Service Station: any new or existing motor vehicle fueling service station subject to payment of California sales tax on gasoline sales.
- 3.13 Topping Off: to attempt to dispense gasoline to a motor vehicle fuel tank after a vapor recovery dispensing nozzle has shut off automatically. The filling of a vehicle tank which can be filled only after the seal between the fill pipe and the nozzle is broken, due to the nature and configuration of the fill pipe which causes premature shut-off of the dispensing nozzle, shall not be considered topping off.

4.0 Exemptions

Except for the provisions of Section 6.1.1 and 6.1.2, this rule shall not apply to the transfer of gasoline into motor vehicle fuel tanks from any existing dispensing facility with an aggregate facility throughput of:

- 4.1 less than or equal to 24,000 gallons per calendar year; and
- 4.2 less than or equal to 10,000 gallons in any consecutive 30-day period.

5.0 Requirements

- 5.1 A person shall not transfer or permit the transfer of gasoline from a stationary storage container subject to the provisions of section 5.1 of Rule 4621 (Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants) into a motor vehicle fuel tank with a capacity of greater than five (5) gallons unless the gasoline dispensing unit used to transfer the gasoline from the stationary storage container to

the motor vehicle fuel tank is equipped with and has in operation a certified Phase II vapor recovery system.

- 5.2 Any gasoline dispensing system subject to this rule shall comply with the provisions of this rule at the time of installation.
- 5.3 Notwithstanding any provisions of this rule, any gasoline dispensing facility which has installed and obtained a permit to operate a certified Phase II vapor recovery system shall continue to use such system and shall maintain the system and all of its components in good repair in order that such system can continue to comply with the certification recovery efficiency. Any certified Phase II vapor recovery system that has been installed shall not be removed regardless of the amount of gasoline dispensed or how the gasoline is delivered to the facility.
- 5.4 Effective on and after March 19, 2003, the owner/operator of a gasoline dispensing facility shall implement a periodic maintenance inspection program and document the program in an operation and maintenance (O&M) manual for the certified Phase II vapor recovery system.
 - 5.4.1 The O&M manual shall be kept at the facility and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the facility as well as to the District personnel upon request. The O&M manual shall contain detailed instructions that ensure proper operation and maintenance of the certified Phase II vapor recovery system and its components in compliance with all applicable rules and regulations. The manual shall, at a minimum, include the following current information:
 - 5.4.1.1 All applicable ARB Executive Orders, Approval Letters, and District Permits.
 - 5.4.1.2 The manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer.
 - 5.4.1.3 System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests listed in Section 6.0. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements.
 - 5.4.1.4 Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair.
 - 5.4.1.5 Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive

Orders, and District permit conditions, including replacement schedules for failure or wear prone components.

- 5.4.2 To ensure that all components of the certified Phase II vapor recovery system are maintained in proper operating condition, the operator shall conduct periodic maintenance inspections. The frequency of inspections shall be based on the amount of gasoline dispensed by the facility in a calendar month as indicated in Table 1.

Table 1 – Schedule of Maintenance Inspection

| Gasoline Dispensed by the Service Station in a Calendar Month | Frequency of Inspections |
|---|--------------------------|
| A. Retail Service Station | |
| 1. Less than 25,000 gallons | One day per week |
| 2. 25,000 gallons or greater | Five days per week |
| B. Non-Retail Service Station | |
| 1. Less than 2,500 gallons | One day per month |
| 2. 2,500 to less than 25,000 gallons | One day per week |
| 3. 25,000 gallons or greater | Five days per week |

- 5.4.3 Any equipment with a major defect which is identified during the periodic maintenance inspections shall be removed from service and, when repaired, duly entered into the O&M manual required under Section 5.4. The person conducting the inspections shall, at a minimum, verify the following during inspections:

5.4.3.1 That the fueling instructions are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs.

5.4.3.2 That the following nozzle components are in place and in good condition as specified in ARB Executive Orders: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, hold open latch.

5.4.3.3 That the hoses are not torn, flattened or crimped.

5.4.3.4 That the vapor path does not contain more than 100 ml of liquid. Determination of the amount of liquid in the vapor path shall be conducted in accordance with the procedure specified in Section 6.2.1.4. Except for gasoline dispensing facilities identified in Section 5.4.2 Table 1 B1, the vapor path shall be inspected at least

once per week. For facilities identified in Section 5.4.2 Table 1 B1, the vapor path shall be inspected at least once per calendar month.

5.4.3.5 That the vapor processing unit is functioning properly.

5.4.3.6 Phase I vapor recovery system components that are functionally part of the Phase II vapor recovery system shall be inspected. The person conducting the inspections shall, at a minimum, verify the following:

5.4.3.6.1 That the fill caps and vapor caps are not missing, damaged, or loose.

5.4.3.6.2 That the fill cap gasket and vapor cap gaskets are not missing or damaged.

5.4.3.6.3 That the fill adapter and vapor adapter are securely attached to the risers.

5.4.3.6.4 That, where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing, and the dry break (poppet-valve) is not missing or damaged.

5.4.3.6.5 That the submerged fill tube is not missing or damaged.

5.5 No person shall operate any certified Phase II vapor recovery system or any portion thereof that has a defect listed in Section 94006 of Title 17 of the California Code of Regulations, or an equipment defect that is identified in any applicable ARB Executive Order, until the defect has been repaired, replaced, or adjusted as necessary to correct the defect, and the District has reinspected the system or has authorized its use pending reinspection. Such authorization shall not include the authority to operate the equipment prior to the correction of the defective components.

5.6 Upon identification of any of the defects described in Section 5.5, the owner or operator shall tag "Out-of-Order" all dispensing equipment for which vapor recovery has been impaired. The tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defective equipment has been repaired, replaced, or adjusted, as necessary. In the case of defects identified by the District, tagged equipment shall be rendered inoperable, and the tag shall not be removed until the District has been notified of the repairs, and/or the District has inspected and authorized the tagged equipment for use.

5.7 All certified Phase II vapor recovery systems and gasoline dispensing equipment shall be maintained to have no leaks as determined by the test method in Section 6.3.4.

- 5.8 No owner or operator of a retail service station shall operate or allow the operation of a certified Phase II vapor recovery system unless operating instructions for the system are posted, noticeable and readable from any place from which gasoline may be dispensed from the facility. The instructions shall describe clearly how to fuel vehicles correctly using the station's dispensing nozzles, shall include a warning that topping off may result in spillage or recirculation of gasoline and is prohibited, and shall display prominently the District's or the Air Resources Board's toll-free telephone numbers, or both, and the information that such number or numbers can be used to register complaints regarding the operation of the vapor recovery system.
- 5.9 No person shall top off a motor vehicle fuel tank.
- 5.10 Each retail service station shall utilize hold-open latches on all gasoline dispensing nozzles. Any gasoline dispensing nozzle which is installed, repaired, or replaced shall be equipped with a hold-open latch. The hold-open latch shall be installed on the gasoline dispensing nozzle by the original manufacturer of the nozzle, or if retrofitted, shall be installed using components and procedures approved by the nozzle manufacturer. The requirements of this provision shall not apply to affected facilities where the use of hold-open latches is prohibited by law or the local fire control authority.
- 5.11 No owner or operator shall tamper with, or permit tampering with, the system in a manner that would impair the operation or effectiveness of the system.
- 5.12 All liquid removal devices required by ARB Executive Order shall be maintained to achieve a minimum liquid removal rate of five milliliters per gallon. This standard shall apply at dispensing rates exceeding five gallons per minute, unless a higher removal rate is specified in the applicable Executive Order.

6.0 Administrative Requirements

6.1 Recordkeeping and Reporting

- 6.1.1 Each gasoline dispensing facility exempt under Section 4.0 shall maintain gasoline throughput records which will allow the gasoline throughput for any 30-day period to be continuously determined. These records shall be maintained on the premises as long as exempt status is claimed.
- 6.1.2 Any gasoline dispensing facility previously exempt under Section 4.0 whose gasoline throughput exceeds the exemption levels in Sections 4.1 and 4.2 shall notify the District within 30 days.
- 6.1.3 Verification that each certified Phase II vapor recovery system meets or exceeds the requirements of the tests specified in section 6.3 shall be maintained for at least two years. These test results shall be dated and shall

contain the names, addresses, and telephone numbers of the companies responsible for system installation and testing.

6.1.4 Effective on and after September 19, 2002, a person who performs repairs on any certified Phase I or Phase II vapor recovery system shall provide to the owner or operator a repair log, which the owner or operator shall maintain on the premises for at least two years and which shall include all of the following:

6.1.4.1 Date and time of each repair;

6.1.4.2 The name of the person(s) who performed the repair, and, if applicable, the name, address and phone number of the person's employer;

6.1.4.3 Description of service performed;

6.1.4.4 Each component that was repaired, serviced, or removed;

6.1.4.5 Each component that was installed as replacement, if applicable;

6.1.4.6 Receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs.

6.1.5 Effective on and after September 19, 2002, each gasoline dispensing facility required to perform periodic maintenance inspections under Section 5.4.2 shall maintain monthly gasoline throughput records on the premises for at least two years.

6.2 Testing

6.2.1 Effective on and after March 19, 2003, an operator shall comply with the certified Phase II vapor recovery system performance verification requirements specified in Sections 6.2.1.1 to 6.2.1.4. For those gasoline dispensing facilities that are not otherwise required by Executive Order or District Permit to perform the Static Leak Test or Dynamic Back-Pressure Test within 18 months of September 19, 2002, initial performance testing as specified in Sections 6.2.1.1 and 6.2.1.2 shall be performed prior to or during the month designated in the Permit to Operate expiration date.

6.2.1.1 Conduct a Static Leak Test of the certified Phase II vapor recovery system at least once every twelve months.

6.2.1.2 Conduct a Dynamic Back-Pressure Test of the certified Phase II vapor recovery system at least once every twelve months.

6.2.1.3 For certified Phase II vapor recovery systems with bellows-less nozzles, conduct an Air-to-Liquid Volume Ratio Test at least once every six months.

6.2.1.4 For certified Phase II vapor recovery systems with a liquid removal device required by ARB Executive Orders, conduct a Liquid Removal Test whenever the liquid in the vapor path exceeds 100 ml of liquid. The amount of liquid in the vapor path shall be determined by lowering the gasoline dispensing nozzle into a container until such time that no more liquid drains from the nozzle. The amount of liquid drained into the container shall be measured using a graduated cylinder or graduated beaker.

6.2.2 The person responsible for conducting the tests specified in Section 6.2.1 shall use calibrated equipment meeting the calibration range and calibration intervals specified by the manufacturer.

6.2.3 Effective on and after March 19, 2003, the person responsible for conducting the tests specified in Section 6.2.1 shall have completed a District-approved training program or the District's orientation class for testing and any subsequent required refresher class.

6.2.4 Each gasoline dispensing facility shall notify the District at least 15 days prior to any compliance testing.

6.2.5 Each certified Phase II vapor recovery system shall be tested within 60 days of completion of installation or major modification.

6.3 Test Methods

6.3.1 Tests shall be conducted in accordance with the latest version of the following ARB approved test methods, or their equivalents as approved by the U.S. Environmental Protection Agency (EPA), ARB, and the APCO.

6.3.1.1 Static Leak Test for Underground Tanks, ARB TP-201.3, and Aboveground Tanks, ARB TP-201.3B

6.3.1.2 Dynamic Back-Pressure Test, ARB TP-201.4

6.3.1.3 Air-to-Liquid Volume Ratio Test, ARB TP-201.5

6.3.1.4 Liquid Removal Test, ARB TP-201.6

6.3.2 Those vapor recovery systems whose ARB Executive Orders specify different tests to be performed instead of, or in addition to, the referenced

test methods, or which, by their design, preclude the use of the referenced test methods, shall be tested in accordance with the test procedures specified in the applicable ARB Executive Orders or their equivalents as approved by the APCO, ARB, and EPA.

6.3.3 The Reid Vapor Pressure of gasoline shall be determined in accordance with ASTM D 5191-93.

6.3.4 Detection of leaks shall be in accordance with EPA Test Method 21.

7.0 Compliance Schedule due to Loss of Exemption

Any person who becomes subject to the requirements of this rule through loss of exemption shall comply with the following increments of progress:

7.1 Within 30 days of loss of exemption from this rule, a complete application for an Authority to Construct must be submitted.

7.2 Construction and testing for compliance with this rule shall be completed within six (6) months from issuing date of Authority to Construct.

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